



Report on Kaizen – 2K23

Rubber Technology Department

L D College of Engineering, Ahmedabad

09th & 10th May 2023



Event Description:

KAIZEN 2K23 is 8th Annual Technical open house event for final year UG Students. The event was organized on 9th & 10th May 2023. The internship presentation and evaluation was organized on 9th May 2023. The internship projects of B.E. Semester 8th Rubber Technology students have displayed their internship work and gave presentation of technical task which was assigned to them during 12-14 week internship at respective Industries. On the second day, the winners were awarded with certificates in presence of Principal, L.D.C.E, Dr. R.K.Gajjar along with chief guests and faculties for motivation and appreciation of students.

Mr. Atul Shah, Founder of Pioneer rubber Industries was invited as a jury member for the project/Internship Evaluation. Prof. R.N.Desai, Prof. B. D. Patel & Prof. S.J.Padhiyar have coordinated and all faculty members have supported for smooth execution of an event.

Total 19 teams of UG have displayed project/Internship work. The list of participating students list of winners and also few glimpses of an event as follows.

2. List of Student Participants

Sr.No	Enrollment No	Name of student	Name of Industry / Company	Title / Domain	External Guide	Internal Guide
1	190280126014	KANJARIYA SANDIPKUMAR DHIRUBHAI	Apollo Tyres, Baroda	In Depth Study On The Tyre Manufacturing Process As A Quality Aspect.	Mr. Akshay Malla	Prof. Sunil Padhiyar
2	190280126002	BHATTI RAJAK HASAMBHAI	Archana Rubbers Pvt. Ltd.	MANUFACTURING OF THE CONVEYOR BELT	Mr. Bharatbhai	Prof.Bhakti Patel
3	190280126009	GODHANIYA SUDHIRBHAI SURSANGBHAI	Archana Rubbers Pvt. Ltd.	MANUFACTURING OF THE CONVEYOR BELT	Mr. Bharatbhai	Prof.Bhakti Patel
4	190280126024	RAJPARA RAJKUMAR PRAVINBHAI	CEAT TYRE	Bead Endurance Improvement	Mr. J. Shankra Shekharan	Dr. Rupande Desai
5	190280126030	SAVANI PARTH PRAVINBHAI	CEAT TYRE	Improve bead durability in TBR tire	Mr. Sandip Patel	Dr. Rupande Desai
6	190280126033	SONANI MANTHAN SANJAYBHAI	CEAT TYRE	Quality improvement of TBR extruded tread	Mr. Ravikumar / Mr. Bobon Sasi	Dr. Rupande Desai
7	190280126038	VEKARIYA DHRUVIN PRAKASHBHAI	CEAT TYRE	SCADA digitalization in mixing and curing	Mr. Binu Sir	Dr. Rupande Desai
8	200280126501	Damin Ashokbhai Barot	GOODWILL Polymers	Innovative Strategies For Rubber Compound Manufacturing	Mr. Bharat Jalondhara	Prof. Riyaz Modan
9	200280126502	Sachin Patil Sudhakarrao	Hyperlink infosystem	Rubber industry infromative website	Mr. Nirmal Patel	Prof. Anal Bhatt
10	190280126007	GALDHARIYA JAY VALLABHBHAI	JMCO Rubber Industries	Research and Development In Rubber Components	Mr. Amarish Desai	Prof.Bhakti Patel
11	190280126036	VAGHAMSHI DHARMIK RAMESH BHAI	JMCO Rubber Industries	Research and Development In Rubber Components	Mr. Amarish Desai	Prof.Bhakti Patel
12	190280126013	KAKADIYA KEVIN MUKESHBHAI	Mould Tools	Design And Manufacturing Of Silicon O-Ring	Dharmeshbhai Timbadiya	Prof. Anal Bhatt

13	190280126027	SAPARIYA DIVYESH ASHOKBHAI	Pioneer Industries	EPDM WASHER	Mr. Atul Shah	Prof. Anal Bhatt
14	200280126507	vikram singh	Pioneer Industries	EPDM WASHER	Mr. Atul Shah	Prof. Anal Bhatt
15	190280126039	ZADAFIYA MEET BHARATBHAI	Polygold Precured Systems PVT LTD.	Butyl Inner Tubes	Mr. Sanjay Patel	Prof. Anal Bhatt
16	190280126005	CHAUHAN SHYAM RAMESHBHAI	Pravin Rubber & Engg. works	Fuel, oils and lubricants storage in operational condition.	Ronak Panchal	Prof. Gnanu Bhatt
17	190280126022	PATEL DHRUVKUMAR RAMESHBHAI	Pravin Rubber & Engg. works	Fuel, oils and lubricants storage in operational condition.	Ronak Panchal	Prof. Gnanu Bhatt
18	190280126026	RATHOD SAUMYA SHAILESHBHAI	Pravin Rubber & Engg. works	Fuel, oils and lubricants storage in operational condition.	Ronak Panchal	Prof. Gnanu Bhatt
19	190280126003	BUSA AVINASH DHANJEEBHAI	Sanvi Rubber	"Air block problem during molding in neoprene O-Ring, Seal and Edge burn in silicone moulded product "	Dhiren Sonagara	Prof.Bhakti Patel
20	190280126029	SAVALIYA JENISH BHARATBHAI	Sanvi Rubber	"Air block problem during molding in neoprene O-Ring, Seal and Edge burn in silicone moulded product"	Dhiren Sonagara	Prof.Bhakti Patel
21	190280126004	CHAUHAN MAULIK MAHESHBHAI	Sevitsil (Suresh Enterprises)	Study about Medical Rubber Products.	Mr. Kamal Chaware	Prof. Sunil Padhiyar
22	190280126010	GONDALIYA MILAN MANOJBHAI	Sevitsil (Suresh Enterprises)	Study about Medical Rubber Products.	Mr. Kamal Chaware	Prof. Sunil Padhiyar
23	190280126017	MAVANI JAY GHANSHYAMBHAI	Sevitsil (Suresh Enterprises)	Study about Medical Rubber Products.	Mr. Kamal Chaware	Prof. Sunil Padhiyar
24	190280126035	TALAVIYA PRATIKKUMAR RAJESHBHAI	Sevitsil (Suresh Enterprises)	Study about Medical Rubber Products.	Mr. Kamal Chaware	Prof. Sunil Padhiyar
25	200280126504	Sawant Shemant Vinodbhai	Shaily Engineering Plastics Ltd.	A project report on the PET Based automobile part's manufacturing plant.	Mr. Kiran Prattam	Prof. Riyaz Modan

26	190280126037	VEDIA AYUSH VIJAYBHAI	TCS	Creation of a tool to get a structured data in sequential flow chart.	Mr. Kirtan Pandya	Dr. Rupande Desai
27	190280126028	SAVALIYA DENIS JAYANTIBHAI	UMA RUBBER AND PLASTIC PRODUCT	Study About Rubber Extruded Products	Mr.Kevin Patel	Prof. Gnanu Bhatt
28	190280126032	SISODIYA JAYMEET RAJESHBHAI	UMA RUBBER AND PLASTIC PRODUCT	Study About Rubber Extruded Products	Mr.Kevin Patel	Prof. Gnanu Bhatt
29	190280126034	SUDANI ABHISHEK HARESHBHAI	UMA RUBBER AND PLASTIC PRODUCT	Study About Rubber Extruded Products	Mr.Kevin Patel	Prof. Gnanu Bhatt
30	190280126019	NAKUM JATIN DIPAKBHAI	Vaibhav Enterprise	Manufacturing of rubber bush	Mr. Bhadresh Shah	Prof. Sunil Padhiyar
31	190280126025	RATHOD ROHAN RAGHAVBHAI	Western Rubbers	Design & Manufacturing Of Silicone Tube And Hoses	Mr. Richith Rajiv	Prof. Anal Bhatt
32	190280126001	BHADANI YASH PRAVINBHAI	MILESTONE Rubber Industries	Overcoming Splice Joint Problem In Automotive Tube	Mr. Chirag Patel	Prof. Riyaz Modan
33	190280126016	MAKWANA JAYESH PRAGJIBHAI	MILESTONE Rubber Industries	Overcoming Splice Joint Problem In Automotive Tube	Mr. Chirag Patel	Prof. Riyaz Modan
34	190280126031	SHINGALA SMIT DINESHBHAI	MILESTONE Rubber Industries	Overcoming Splice Joint Problem In Automotive Tube	Mr. Chirag Patel	Prof. Riyaz Modan
35	190280126021	PATEL DEEPKUMAR RAJESHBHAI	Z PLUS ENTERPRISE	Efficient Usage Of Waste Rubber	Jiger B. Patel	Prof. Riyaz Modan

3. Winners of KAIZEN 2023

RANK	Name of Students	Enrollment	Project/Internship	Name of	Remarks
		no	Title	Faculty	of
				mentor	experts
1	RAJPARA RAJKUMAR	190280126024	Bead Endurance	Dr. R.N. Desai	Good
	PRAVINBHAI		Improvement		
2	VEDIA AYUSH	190280126037	Creation of a tool to get	Dr. R.N. Desai	Good
	VIJAYBHAI		a structured data		
			in sequential flow chart		
3	RATHOD ROHAN	190280126025	Design & Manufacturing	Prof. A.D. Bhatt	Good
	RAGHAVBHAI		Of Silicone Tube		
			And Hoses		

Brief about Winner Projects

1st Winner – Bead Endurance Improvement

Team members

Rajpara Rajkumar Pravinbhai Guided by

Internal Guide: Dr. Rupande Desai

External Guide: J sankara sekhran

Abstract:

This project aims to investigate the effect of curing temperature on the endurance of TBR (Truck and Bus Radial) tire beads and to improve their endurance. The study will involve conducting experiments using different curing temperatures and measuring the endurance of the tire beads using appropriate methods. The results obtained will be analyzed to determine the optimal curing temperature for improving bead endurance. The findings of this study will contribute to the development of more durable and reliable TBR tires, which can ultimately lead to increased safety and reduced costs in the transportation industry. TBR (Truck and Bus Radial) tires are designed to withstand the demanding conditions of heavy-duty commercial vehicles. The bead area of these tires plays a critical role in maintaining the tire's integrity and ensuring its safe performance on the road. However, the endurance of the tire beads can be affected by various factors, including the curing temperature during the manufacturing process. One possible approach to improve bead endurance is to modify the rubber compound used in

the bead area. By incorporating additives that enhance the rubber's strength, adhesion, and resistance to fatigue, the tire manufacturer can produce a more durable bead that can withstand the demands of heavy-duty use.

Overall, the findings of this study will be useful in developing more durable and reliable TBR tires, which can ultimately lead to increased safety and reduced costs in the transportation industry. Overall, I got good learning at Ceat Tyres during my internship period.

2nd Winner: Creation of a tool to get a structured data in sequential flow chart.

Team Members: Vedia Ayush Vijaybhai

Guided by: Prof. Dr. Rupande Desai

Internal Guide: Prof. Dr. Rupande Desai

External Guide: Mr. Kirtan Pandya

Abstract:

Like other general-purpose programming languages, C# can be used to create a number of different programs and applications: mobile apps, desktop apps, cloud-based services, websites, enterprise software and games. C# is an object-oriented, component-oriented programming language. C# provides language constructs to directly support these concepts, making C# a natural language in which to create and use software components. Since its origin, C# has added features to support new workloads and emerging software design practices. XML is short for eXtensible Markup Language. It is a very widely used format for exchanging data, mainly because it's easily readable for both humans and machines. C# documentation comments use XML elements to define the structure of the output documentation. One consequence of this feature is that you can add any valid XML in your documentation comments. The C# compiler copies these elements into the output XML file. I have learned many new things in this field and got very good exposure at Tata Consultancy Services (TCS).

3rd Winner: Design & Manufacturing of silicone Tube and Hoses

Team members: Rathod Rohan Raghavbhai

Guided by: Prof. Anal Bhatt

Internal Guide: Prof. Anal Bhatt

External Guide: Mr. Ruchith Rajeev

Abstract

The Internship We had with Western Rubber, was indeed a great opportunity and learning experience, which helped us to understand how the variety of rubber products are manufactured industrially and various kinds of manufacturing process involved before getting a final product in our hands. The system, the style of working & the commitment of the employees in Western Rubber is really exemplary. During the period of three months training at Western Rubber, we were committed to do all kind of work such as making development batch, sharing ideas for the research and development of new rubber goods, operating all rubber equipment and helping workers in order to increase the work efficiency and at the same time, they teach us about the safety kept in mind at the time of operating machines. Western rubber manufactures Silicon rubber products such as tubes, hoses and many surgical products. Silicon rubber is widely used worldwide and versatile rubber. Its major properties are extreme heat resistance, good low temperature flexibilility with antimicrobial properties. Its major applications are electrical insulation, surgical products and washers and seals. Due to its unique structural features silicon rubber gives unique characteristics. This is partially Organic and partially Inorganic rubber and its processing characteristics are also unique among all synthetic rubbers.

Glimpses from KAIZEN 2K23:



The team behind KAIZEN 2K23



Project demonstration to judges



Project review is being done by experts



Inspiration by Jury



Expert Evaluation



Rubber Technology Faculty with final year students – Final Goodbye